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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/742,154	12/19/2003	David S. Benco	LUC-459/Benco 56-7	6000

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EXAMINER

HANNIF ALI, LARRY

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/742,154

Applicant(s)

BENCO ET AL.

Examiner

Larry Hannif-Ali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13, 14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13, 14 and 16-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Amendment*

1. This office action is in response to amendment filed 01-05-2006. Accordingly, **Claims 1-12, 15** are cancelled and **Claims 13-14, and 16-20** are pending for examination.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action: (a) a patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 13-14 and 16-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakke (U.S. Patent No. 6,740,812 B2) in view of Davis (U.S. Pub. No. 2004/0214581 A1) in view of Kitchin (U.S. Pub. No. 2002/0154656 A1) and further in view of Jolley (U.S. Patent No. 5,832,244).

Regarding **Claim 13**, Bakke teaches a method for interfacing a data capable mobile phone to at least one peripheral device [Col 6, lines 20-26 & Col 6, lines 52-55 & Col 8, lines 19-30 & Fig. 1, Items 115, 130, 132, 134, 136], comprising: providing an internal bus in the mobile phone [Col 6, lines 20-25]; providing a peripheral hub having an input that is an I/O port and at least one output that is an I/O port [Col 6, lines 61-63 & Fig. 1, Items 115, 130, 132, 134, and 136]; operatively connecting the internal bus to the input of the peripheral hub [Col 6, lines 61-63 & Col 6, lines 64-66 & Fig. 1, Items 115, 130]; operatively connecting at least one peripheral device to the at least one output of the peripheral hub [Col 6, lines 61-63 & Col 6, lines 64-66 & Fig. 1, Items 132, 134, 136]; internetworking

with the internal bus of the mobile phone to exchange data and control information with a CPU of the mobile phone [Col 6, lines 52-55]. However, Bakke fails to specifically teach providing an I/O interface device controller respectively for each I/O port in the peripheral hub and directing control and data from the internal bus to a corresponding interface device controller for a respective peripheral device. The examiner considers that the claimed limitation was well known in the art as taught by Davis.

In an analogous art, Davis discloses an I/O hub providing an I/O interface device controller respectively for each I/O port in the peripheral hub [paragraph 0024 & Fig. 4, Items 340, 346] and directing control and data from the internal bus to a corresponding interface device controller for a respective peripheral device [paragraph 0024 (I/O controller controls access to one or more I/O devices)].

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the hub of Bakke to incorporate the I/O controllers as taught by Davis in order to have a hub capable of controlling the devices connected to it.

The combination of Bakke and Davis teaches everything as applied above. However, the combination fails to specifically teach storing in the peripheral hub and installing the drivers for peripheral devices connected to the peripheral hub. The examiner considers that the claimed limitation was well known in the art as taught by Kitchin.

In an analogous art, Kitchin discloses a wireless network hub in one embodiment storing drivers in the peripheral hub and installing the drivers for peripheral devices connected to the peripheral hub [paragraph 0026 & Fig. 2].

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to modify the combination of Bakke and Davis to include the storing and installing of device drivers as taught by Kitchin in order to have a peripheral hub that is not dependent on a host device for storing and installing drivers for peripheral devices.

The combination of Bakke, Davis and Kitchin teaches everything as applied above including the peripheral hub. However, the combination fails to specifically teach recognizing, peripheral devices connected to the peripheral hub, separating peripheral interfaces from the internal bus and making respective peripheral interfaces available on respective peripheral device outputs of the peripheral hub. The examiner considers that the claimed limitation was well known in the art as taught by Jolley.

In an analogous art, Jolley discloses a multiple input/output port/adaptor capable of recognizing peripheral devices connected to it, separating peripheral interfaces from the internal bus and making respective peripheral interfaces available on respective peripheral device outputs of the port/adaptor [Col 4, lines 31-54].

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to modify the combination of Bakke, Davis and Kitchin to include the multiple input/output port capable of recognizing and separating different types of interfaces connected to it as taught by Jolley in order to have a peripheral hub capable of being used with a plurality of different types of interface devices.

Regarding **Claim 14**. The combination of Bakke, Davis, Kitchin, and Jolley further teaches wherein the peripheral hub has a plurality of peripheral device outputs [Bakke: Col 6, lines 61-63], and wherein a respective peripheral device output of the plurality of peripheral device outputs is one of; DB25 parallel port connector, HD15 connector, six pin mini DIN (PS/2) connector, IEEE1394 six pin connector, IEEE 1394 four pin connector, USB-A connector, and USB-B connector [Bakke: Col 7, lines 61-66].

Regarding **Claim 16**. The combination of Bakke, Davis, Kitchin, and Jolley further teaches wherein the a plurality of peripheral devices are operatively connected to the peripheral hub [Bakke: Col 6, lines 61-63], and wherein a respective

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peripheral device of the plurality of peripheral devices is one of: mouse, trackball, monitor, keyboard, printer, scanner, digital camera, storage device, digital video camera, joystick, speaker, audio system, video display device, and microphone [Bakke: Col 6, lines 64-66].

Regarding **Claim 17**. Bakke teaches a system for interfacing to peripheral devices, comprising: a data capable mobile phone having an internal bus [Col 6, lines 20-26 & Col 6, lines 52-55 & Col 8, lines 19-30]; a peripheral hub operatively connected to the internal bus [Col 6, lines 61-63 & Fig. 1, Item 130], the peripheral hub having I/O ports [Col 6, lines 61-63 & Fig. 1, Items 115, 130, 132, 134, and 136]; a plurality of peripheral devices operatively connected to the I/O ports of the peripheral hub [Col 6, lines 61-63 & Col 6, lines 64-66 & Fig. 1, Items 115, 130, 132, 134, 136]; the peripheral hub having: an input operatively connectable to the internal bus of the mobile phone [Col 6, lines 61-63 & Col 6, lines 64-66 & Fig. 1, Items 115, 130]; peripheral device outputs that are I/O ports [Col 6, lines 61-63 & Col 6, lines 64-66 & Fig. 1, Items 132, 134, 136]. However, Bakke fails to specifically teach a functionality module having I/O interface device controllers for the I/O ports operatively connected to the input and respectively to the peripheral device outputs. The examiner considers that the claimed limitation was well known in the art as taught by Davis.

In an analogous art, Davis discloses an I/O hub providing a functionality module having I/O interface device controller for the I/O ports operatively connected to the input and respectively to the peripheral device outputs [paragraph 0024 & Fig. 4, Items 340, 346 & paragraph 0021 (inherently, the functionality module is implemented in a computer program)]

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the hub of Bakke to incorporate the I/O controllers as taught by Davis in order to have a hub capable of controlling the devices connected to it.

The combination of Bakke and Davis teaches everything as applied above. However, the combination fails to specifically teach to store and install drivers for the peripheral devices operatively connected to the peripheral hub. The examiner considers that the claimed limitation was well known in the art as taught by Kitchin.

In an analogous art, Kitchin discloses a wireless network hub in one embodiment storing drivers in the peripheral hub and installing the drivers for peripheral devices connected to the peripheral hub [paragraph 0026 & Fig. 2].

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to modify the combination of Bakke and Davis to include the storing and installing of device drivers as taught by Kitchin in order to have a peripheral hub that is not dependent on a host device for storing and installing drivers for peripheral devices.

The combination of Bakke, Davis and Kitchin teaches everything as applied above including the functionality module. However, the combination fails to specifically teach separating peripheral interfaces available on the respective peripheral device outputs; and having functionality to recognize peripheral devices connected to the peripheral hub. The examiner considers that the claimed limitation was well known in the art as taught by Jolley.

In an analogous art, Jolley discloses a multiple input/output port/adaptor wherein separating peripheral interfaces available on the respective peripheral device outputs; and the having functionality to recognize peripheral devices connected to the peripheral hub [Col 4, lines 31-54].

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to modify the combination of Bakke, Davis and Kitchin to include the multiple input/output port capable of recognizing and separating different types of interfaces connected to it as taught by Jolley in order to have a peripheral hub capable of being used with a plurality of different types of interface devices.

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Regarding **Claim 18**. The combination of Bakke, Davis, Kitchin, and Jolley further teaches wherein a respective peripheral device output of the plurality of peripheral device outputs is one of; DB25 parallel port connector, HD15 connector, six pin mini DIN (PS/2) connector, IEEE1394 six pin connector, IEEE 1394 four pin connector, USB-A connector, and USB-B connector [Bakke: Col 7, lines 61-66].

Regarding **Claim 19**. The combination of Bakke, Davis, Kitchin, and Jolley further teaches wherein the system further comprises an interface cable having a first end releasably connectable to the bus connector and a second end operatively connected to the input of the peripheral hub [Bakke: Col 7, lines 61-66 & Fig. 1 (inherently, a connector will be incorporated to bridge the bus and cable)].

Regarding **Claim 20**. The combination of Bakke, Davis, Kitchin, and Jolley further teaches wherein a respective peripheral device output of the plurality of peripheral device outputs is one of; DB25 parallel port connector, HD15 connector, six pin mini DIN (PS/2) connector, IEEE1394 six pin connector, IEEE 1394 four pin connector, USB-A connector, and USB-B connector [Bakke: Col 7, lines 61-66].

### ***Response to Arguments***

3. Applicant's arguments with respect to **Claims 1-16** have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory



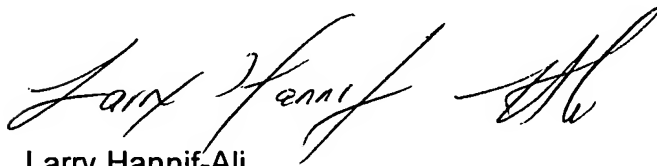
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action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Larry Hannif-Ali whose telephone number is 571-272-5598. The examiner can normally be reached on Mon-Fri 9:00AM - 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Larry Hannif-Ali

March 21, 2006

  
LESTER G. KINCAID  
SUPERVISORY PRIMARY EXAMINER